

PRELIMINARY ISSUE

Work Order ID 61927-1



Page 1

Thursday, September 09, 2010 12:55:03 PM

Item ID: D4180-2

Accept



Setup Start



Revision ID: PRELIM

Item Name: Gusset

Stop



Start Date: 9/9/2010 Start Qty: 2.00

Cust Item ID:

Required Date: 9/16/2010 Req'd Qty: 2.00

Customer:

Reference:

Approvals: Process Plan:

Date: 10-9-09 Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/ Work Center ID	Operation Description	Set Up/ Run Hours	Tool ID	Tool #	Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
Draw Nbr	Revision Nbr								
D4180	PA1								
100		0.00							
Waterjet	Memo	0.00							
FLOW CNC Waterjet	1-Cut as per Dwg Dwg Rev: PA1 Prog Rev: PA1								
	2-Deburr if necessary								
110		0.00							
QC	QC2- Inspect parts off machine FAI/FAIB	0.00							
Quality Control	Memo	0.00							

10-9-13

(4)

10-9-13

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 61927

Thursday, September 09, 2010 12:55:03 PM



Item ID: D4180-2

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Gusset

Start Date: 9/9/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 9/16/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

120

QC8- Inspect parts - second check

0.00 - inspected to PA1



QC

Memo

0.00

Day only (x4)
8/10/13

Quality Control

130

Bend as per dwg

0.00



Brake NC

Memo

0.00

8/10/14

Brake NC

140

QC5- Inspect part completeness to step on W/O

0.00 - inspected to PA1



QC

Memo

0.00

Day only
8/10/14 (x4)
-2

Quality Control

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Work Order ID 61927

Thursday, September 09, 2010 12:55:03 PM



Page 3

Item ID: D4180-2

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Gusset

Start Date: 9/9/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 9/16/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

150

Chemical Conversion Coat per QSI005 4.1

0.00

-7 MU

10/09/10

4

φ

HandFinish

Memo

0.00

Hand Finishing

160

QC3- Inspect Part Finish

0.00

BR 10-9-10

④ φ

QC

Memo

0.00

Quality Control

170

Identify as per dwg & Stock Location: CA

0.00

Jan.

AT 10-09-23 ④

Packaging

Memo

0.00

Packaging

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
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NOTE: Date & initial all entries

Work Order ID 61927

Thursday, September 09, 2010 12:55:03 PM



Page 4

Item ID: D4180-2

Accept



Setup Start



Revision ID: PRELIM

Stop



Item Name: Gusset

Start Date: 9/9/2010 Start Qty: 2.00



Cust Item ID:

Required Date: 9/16/2010 Req'd Qty: 2.00



Customer:

Reference:

Approvals:

Process Plan:

Date:

Tooling:

Date:

Run Start



QC:

Date:

SPC (Y/N):

Date:

Stop



Sequence ID/
Work Center ID

Operation
Description

Set Up/
Run Hours

Tool ID

Tool #

Plan
Code

Accept
Qty

Reject
Qty

Reject
Number

Insp.
Stamp

180

QC21- Final Inspection - Work Order Release

0.00

QC

Memo

0.00

Quality Control

10/09/29

11009.23

POSITIVE RECALL

EFFECTIVE 10.09.09 AUTH W

RELEASED 10.09.29 DATE 10.09.29

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

Picklist Print

Thursday, September 09, 2010 12:55:07 PM

Page 1

Work Order ID: 61927



Parent Item: D4180-2



Parent Item Name: Gusset

Start Date: 9/9/2010

Required Date: 9/16/2010

Start Qty: 2.00

Required Qty: 2.00

Comments: IPP Rev:A 10.09.09 new issue DD verf:EC

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
---------------------------------	------------------------	---------------	-------------	---------------------	------------------	-----------------	--------------------	----------------	-------------	--------------	---------------	----------------	--------

M6061T6S.125

Purchased

No

100

sf

125.2600

0.191

0.402105



IB10-9-B

6061-T6 .125 Sheet

Location

Loc Qty

Loc Code

MAT21

125.26

113608

96

114352

29.26

114352

(4)

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

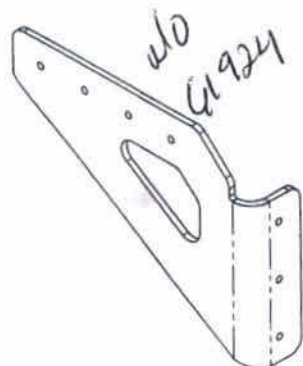
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NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

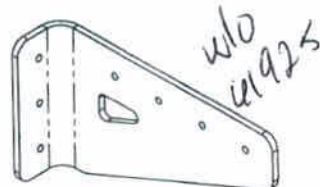
NOTE: Date & initial all entries

Rowe / Born / ArF
 → **ADWE**

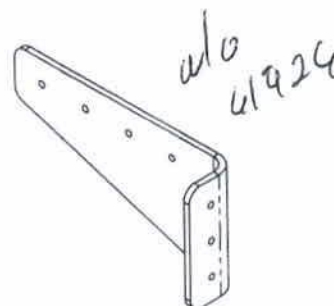
x 2 ends



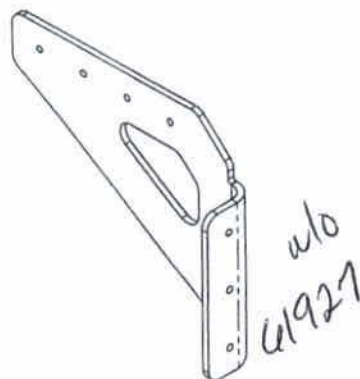
D4180-1 GUSSET



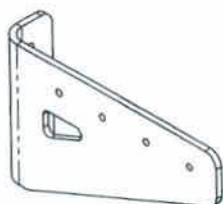
D4180-3 GUSSET



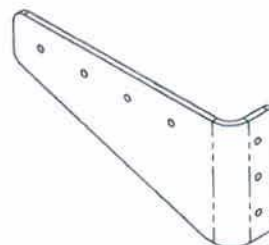
D4180-5 GUSSET



D4180-2 GUSSET



D4180-4 GUSSET



D4180-6 GUSSET

SHOP COPY
 RETURN TO
 ENGINEERING
 UNCONTROLLED COPY
 SUBJECT TO AMENDMENTS
 WITHOUT NOTICE
 WORK ORDER NO. **41927**
BP 10909

PRELIMINARY ISSUE
 10.09.08

PA1	NEW ISSUE	MB	10.09.03
REV.	DESCRIPTION	BY	DATE
DESIGN			
DRAWN			
CHECKED			
MFG. APPR.			
APPROVED			
DE APPR.			
DATE	10.09.03		

DART AEROSPACE LTD HAWKESBURY, ONTARIO, CANADA	
DRAWING NO. D4180	REV. PA1 SHEET 1 OF 4
TITLE POD FRAME GUSSETS	
SCALE NTS	
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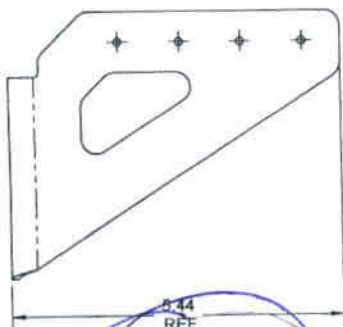
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

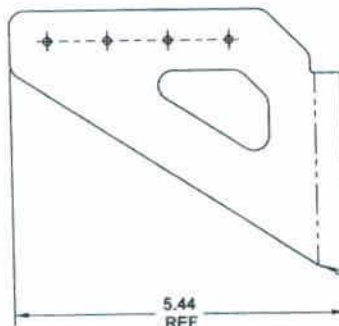
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

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DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

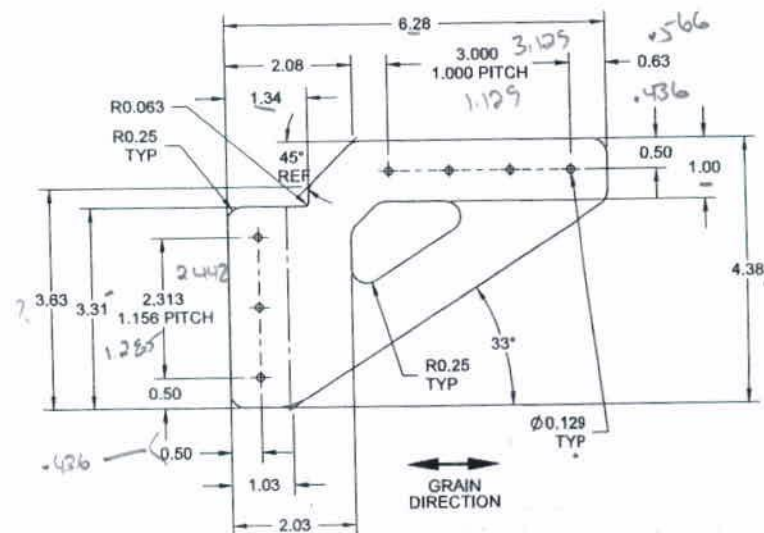
NOTE: Date & initial all entries



D4180-2 GUSSET
MAKE FROM D4180-1F



D4180-1 GUSSET
MAKE FROM D4180-1F



D4180-1F GUSSET FLAT PATTERN

u/b 6/19/27

PRELIMINARY ISSUE
10.09.08

NOTES:

- 1) MATERIAL: 6061-T6/T62 ALUMINUM SHEET, 0.125 THICK PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 REF. DART SPEC. M6061T6S.125
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.19 lbs EACH

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PA
MFG. APPR.		D4180	SHEET 2 OF
APPROVED		TITLE	SCALE
DE APPR.		POD FRAME GUSSETS	NTS
DATE	10.09.03	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
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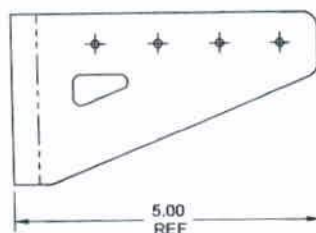
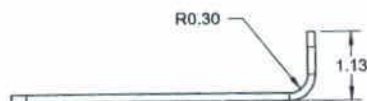
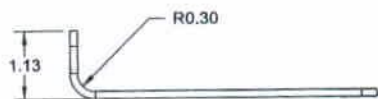
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

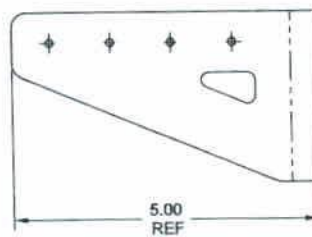
Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

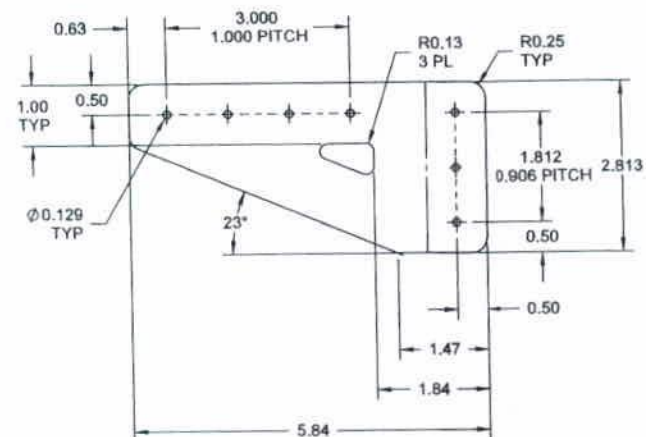
NOTE: Date & initial all entries



D4180-4 GUSSET
MAKE FROM D4180-3F



D4180-3 GUSSET
MAKE FROM D4180-3F



D4180-3F GUSSET FLAT PATTERN

w/o 01927

PRELIMINARY ISSUE
10.09.08

- NOTES:**
- 1) MATERIAL: 6061-T61/T62 ALUMINUM SHEET, 0.125 THICK PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 REF. DART SPEC. M6061T6S.125
 - 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
 - 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
 - 4) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
 - 6) IDENTIFICATION: NONE
 - 7) WEIGHT: 0.15 lbs EACH

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PA1
MFG. APPR.		D4180	SHEET 3 OF 4
APPROVED		TITLE	SCALE
DE APPR.		POD FRAME GUSSETS	NTS
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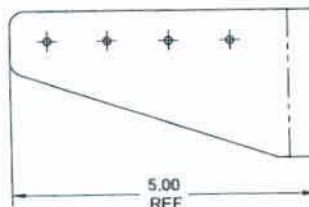
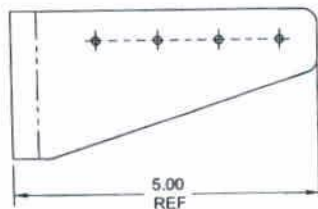
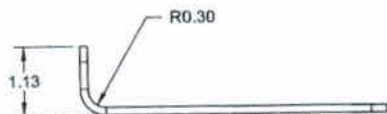
W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: _____ PAR #: _____ Fault Category: _____ NCR: Yes No DQA: _____ Date: _____

Resolution: _____ Disposition: _____ QA: N/C Closed: _____ Date: _____

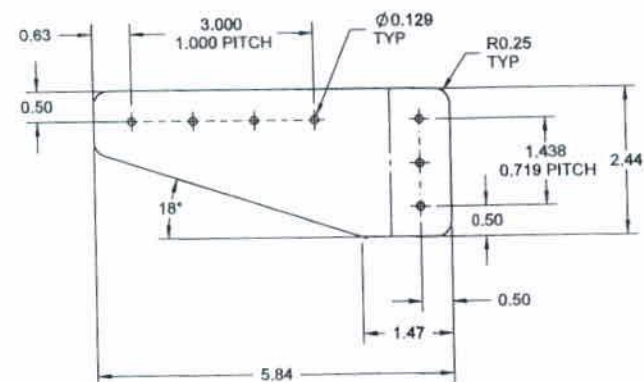
NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries



D4180-5 GUSSET
MAKE FROM D4180-5F

D4180-6 GUSSET
MAKE FROM D4180-5F



D4180-5F GUSSET FLAT PATTERN

WLO 11927

PRELIMINARY ISSUE
10.09.08

NOTES:

- 1) MATERIAL: 6061-T61/T62 ALUMINUM SHEET, 0.125 THICK PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 REF. DART SPEC. M8061T6S.125
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.13 lbs

DESIGN		DART AEROSPACE LTD	
DRAWN		HAWKESBURY, ONTARIO, CANADA	
CHECKED		DRAWING NO.	REV. PA1
MFG. APPR.		D4180	SHEET 4 OF 4
APPROVED		TITLE	SCALE
DE APPR.		POD FRAME GUSSETS	NTS
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DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

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			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

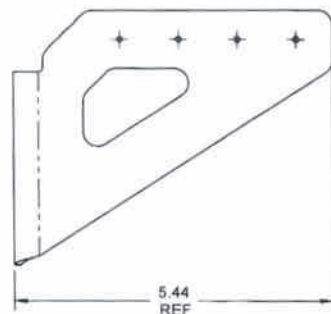
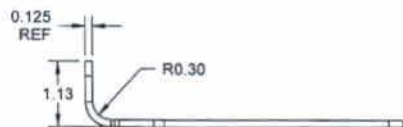
DART AEROSPACE LTD		Work Order: 61924
Description: GUSSET		Part Number: D4180-1
Inspection Dwg: D4180-1 Rev: PA1		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

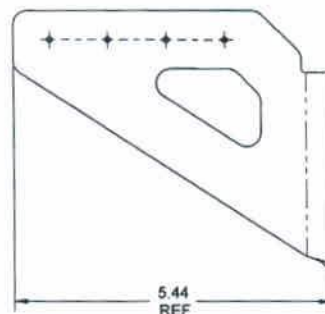
☒ First Article ☐ Prototype

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
φ .129	+ .005 - .001	.129	✓		V HB02	
1.34	± .030	1.337	✓		V	
2.08	± .030	2.08	✓		V	
3.000	± .010	3.000	✓		V	
1.000	± .010	1.000	✓		V	
.63	± .030	.630	✓		V	
6.78	± .030	6.799	✓		V	
.50	± .030	.501	✓		V	
1.00	± .030	1.000	✓		V	
4.38	± .030	4.383	✓		V	
2.03	± .030	2.038	✓		V	
1.03	± .030	1.025	✓		V	
.50	± .030	.497	✓		V	
2.313	± .010	2.315	✓		V	
1.156	± .010	1.159	✓		V	
3.31	± .030	3.316	✓		V	
3.63	± .030	3.633	✓		V	
.125	± .010	.123	✓		V	

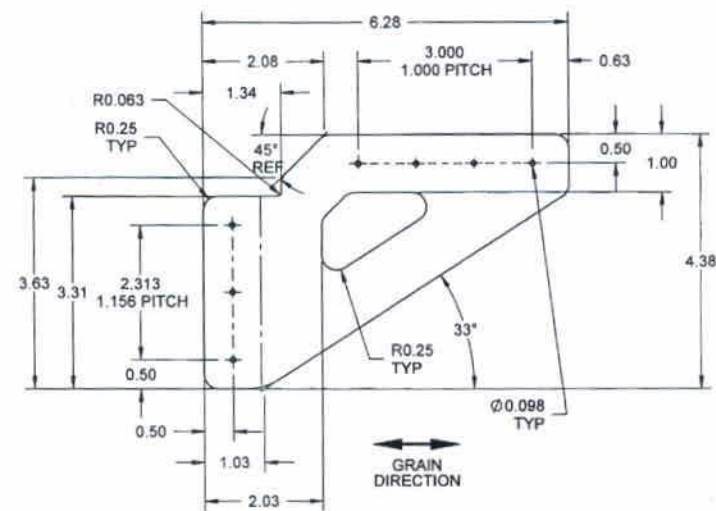
Measured by: IB	Audited by: S	Prototype Approval: N/A
Date: 10-9-13	Date: 10/09/13	Date: N/A
inspected by PA1 Dwg on 7		
Rev A	Date	Change
		New Issue
	Revised by KJ/JLM	Approved



D4180-2 GUSSET
MAKE FROM D4180-1F



D4180-1 GUSSET
MAKE FROM D4180-1F



D4180-1F GUSSET FLAT PATTERN

NOTES:

- 1) MATERIAL: 6061-T61/T62 ALUMINUM SHEET, 0.125 THICK PER QQ-A-250/11 OR AMS-QQ-A-250/11 OR AMS 4025 OR AMS 4027 OR ASTM B209 REF. DART SPEC. M6061T6S.125
- 2) FINISH: CHEMICAL CONVERSION COAT PER DART QSI 005 4.1
- 3) TOLERANCES: PER DART QSI 018 UNLESS OTHERWISE NOTED
- 4) UNITS: INCHES UNLESS OTHERWISE NOTED
- 5) BREAK SHARP EDGES: 0.005 TO 0.010 MAX
- 6) IDENTIFICATION: NONE
- 7) WEIGHT: 0.19 lbs EACH

DESIGN	J	DART AEROSPACE LTD	
DRAWN	J	HAWKESBURY, ONTARIO, CANADA	
CHECKED	J	DRAWING NO.	REV. A
MFG. APPR.	J	D4180	SHEET 2 OF 4
APPROVED	J	TITLE	SCALE
DE APPR.	J	POD FRAME GUSSETS	NTS
DATE	10.09.03	COPYRIGHT © 2010 BY DART AEROSPACE LTD	
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61927 RELEASED
2010-09-29